

CLAIMS:

1. A cleaning system for the condenser of a refrigeration unit, the system comprising:
 - a compressor including a motor,
 - a condenser,
 - a cooling fan including a fan blade;
 - a motor drive system for driving the fan; and
 - control means for running the fan motor drive system at a first selected speed in a forward direction to direct air toward the condenser for a first predetermined period of time and at a second selected speed in a reverse direction to direct air away from the condenser for a second predetermined period of time, the speed and the time periods being effective to prevent formation of lint on the condenser.
2. A cleaning system as defined in claim 1, wherein:
 - the first selected speed is less than the second selected speed.
3. A cleaning system as defined in claim 1, wherein:
 - the first predetermined time period is longer than the second predetermined time period.
4. A cleaning system as defined in claim 2, wherein:
 - the fan is continuously run at the lower speed and the motor drive system reversed several times a day to run at the higher speed in the opposite direction.

5. A cleaning system as defined in claim 1, wherein:

the first selected speed is about 1500 rpm and the second selected speed is about 2000 rpm.
6. A cleaning system as defined in claim 1, wherein:

the reversing motor drive system is powered directly off terminals associated with the compressor.
7. A cleaning system as defined in claim 1, wherein:

the control means includes a timer.
8. A cleaning system as defined in claim 7, wherein:

the timer causes the motor drive system to run in the reverse direction for about 14 minutes after every 8 hours of compressor running time.
9. A cleaning system as defined in claim 1, wherein:

the reversing motor drive system includes a solid state commutated motor.
10. A cleaning system as defined in claim 9, wherein:

the first selected speed is less than the second selected speed.

11. A cleaning system as defined in claim 10, wherein:

the first selected speed is about 1500 rpm and the second selected speed is about 2000 rpm.
12. A cleaning system as defined in claim 7, wherein:

the reversing motor drive system includes a solid state commutated motor and the timer are electrically connected to terminals of the compressor motor.
13. A cleaning system as defined in claim 1, wherein:

the motor drive system includes a reversible permanent split capacitor motor.
14. A cleaning system as defined in claim 13, wherein:

the first selected speed and the second selected speed are equal.
15. A cleaning system as defined in claim 14, wherein:

the first selected speed and the second selected speed are about 1500 rpm.
16. A kit for retrofitting a refrigerator unit of the type comprising a compressor, a condenser and a motor and a fan blade with a condenser cleaning system, the kit comprising:

a replacement reversible condenser fan motor; and

control means for running the replacement motor at a first selected speed to

direct air toward the condenser for a first predetermined period of time, and in a reverse direction of the motor to direct air away from the condenser at a second selected speed for a second predetermined period of time, the speed and the time periods being effective to prevent formation of lint, the control means including a timer.

17. A kit as defined in claim 16, wherein:

the reversible motor is a solid state commutated motor.

18. A kit as defined in claim 16, wherein:

the reversible motor is a reversible permanent split capacitor motor.

19. A method of retrofitting a refrigerator unit, of the type comprising a compressor, a condenser, a condenser fan having an existing motor and a blade, with a condenser cleaning system including a reversible condenser fan motor and a timer, the method comprising the steps of:

disconnecting a power supply to the refrigerator unit;

disconnecting existing condenser fan motor leads from the compressor;

removing the existing condenser fan motor;

removing the condenser fan blade;

installing the condenser fan blade in the same direction on the reversible condenser fan motor;

installing the reversible condenser fan motor on the refrigerator unit;

mounting the timer on the refrigerator unit;
connecting the reversible condenser fan motor and timer power leads to the
same compressor terminals from which the existing condenser fan motor
leads were removed; and
reconnecting the power supply to the refrigerator unit.